

A NEW MECHANISM FOR CELL ROUTING IN A MULTI-STAGE FABRIC
WITH INPUT QUEUING

ABSTRACT OF THE DISCLOSURE

5 A head of line (HOL) blocking count value, which is
directly proportional to the committed traffic load for
traffic flow through an output port within a multi-stage
switch mesh, is computed for a path by adding the values
10 associated with all output ports within the path. In
selecting a route, all paths from the source to the
destination are identified and sorted by head of line
blocking count value. Rather than selecting a path based
on traffic load, the path having the lowest head of line
15 blocking count value and sufficient capacity for the
requested traffic is selected, with selection between paths
having equal head of line blocking count values being made
based on traffic load.